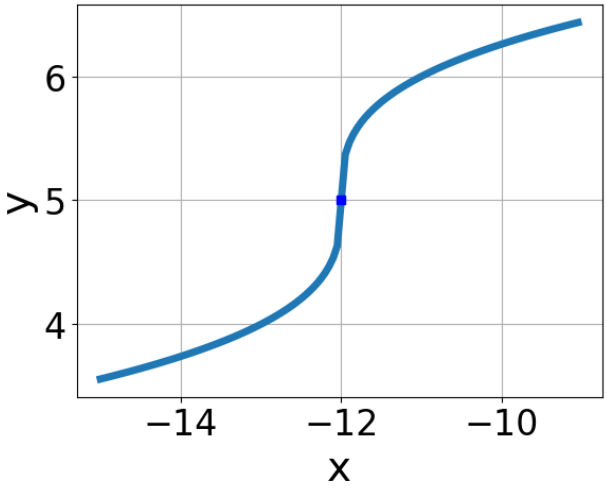
1. Choose the equation of the function graphed below.



A. $f(x) = -\sqrt[3]{x-12}+5$

B. $f(x) = -\sqrt[3]{x+12}+5$

C. $f(x) = \sqrt[3]{x-12}+5$

D. $f(x) = \sqrt[3]{x+12}+5$

E. None of the above

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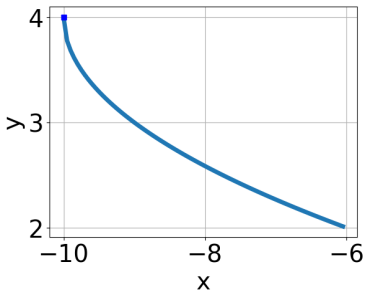
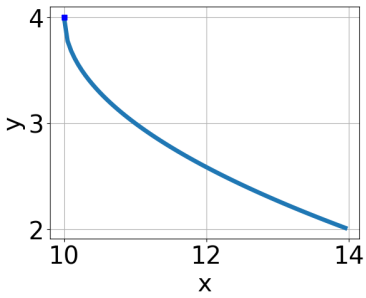
2. Choose the graph of the equation below.

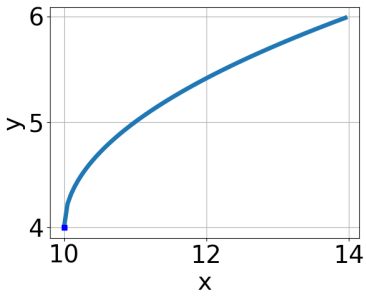
$$f(x) = \sqrt{x+10}+4$$

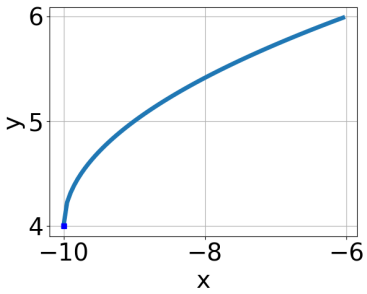
A.



B.



C. 

D. 

E. None of the above.

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3. Solve the radical equation below. Then, choose the interval(s) that the solution(s) belongs to.

$$\sqrt{-36x^2 - 12} - \sqrt{-42x} = 0$$

A. $x \in [0.2, 0.59]$

B. All solutions lead to invalid or complex values in the equation.

C. $x_1 \in [-0.62, -0.24]$ and $x_2 \in [-2.67, 0.33]$

D. $x_1 \in [0.2, 0.59]$ and $x_2 \in [-0.33, 2.67]$

E. $x \in [0.66, 1.01]$

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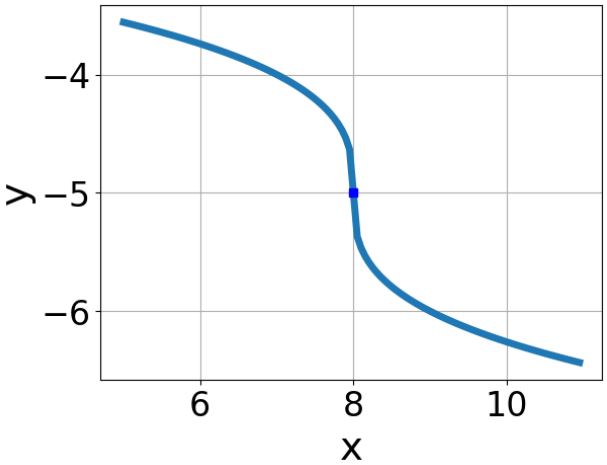
4. Choose the equation of the function graphed below.



A. $f(x) = -\sqrt{x - 8} - 5$

B. $f(x) = \sqrt{x-8} - 5$

C. $f(x) = -\sqrt{x+8} - 5$

D. $f(x) = \sqrt{x+8} - 5$

E. None of the above

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5. Solve the radical equation below. Then, choose the interval(s) that the solution(s) belongs to.

$$\sqrt{56x^2 + 15} - \sqrt{59x} = 0$$

A. $x_1 \in [-0.77, -0.42]$ and $x_2 \in [-1.17, 0.14]$

B. All solutions lead to invalid or complex values in the equation.

C. $x_1 \in [0.41, 0.43]$ and $x_2 \in [-0.14, 1.56]$

D. $x \in [0.58, 0.79]$

E. $x \in [0.41, 0.43]$

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6. Solve the radical equation below. Then, choose the interval(s) that the solution(s) belongs to.

$$\sqrt{2x+8} - \sqrt{7x-5} = 0$$

A. $x_1 \in [-4.6, -3.8]$ and $x_2 \in [-0.1, 2.1]$

B. All solutions lead to invalid or complex values in the equation.

C. $x \in [0, 0.9]$

D. $x_1 \in [-4.6, -3.8]$ and $x_2 \in [1.7, 5]$

E. $x \in [1.8, 2.9]$

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7. What is the domain of the function below?

$$f(x) = \sqrt[8]{4x-3}$$

A. $(-\infty, a]$, where $a \in [1.2, 1.4]$

B. $[a, \infty)$, where $a \in [0.51, 1.04]$

C. $[a, \infty)$, where $a \in [0.76, 2.39]$

D. $(-\infty, \infty)$

E. $(-\infty, a]$, where $a \in [-1.6, 1.2]$

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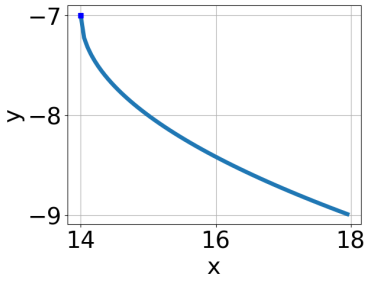
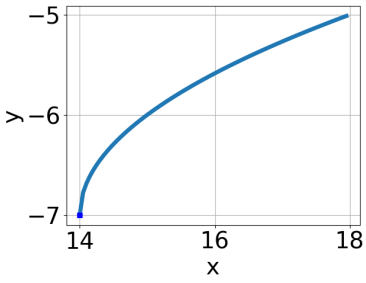
8. Choose the graph of the equation below.

$$f(x) = -\sqrt{x + 14} - 7$$

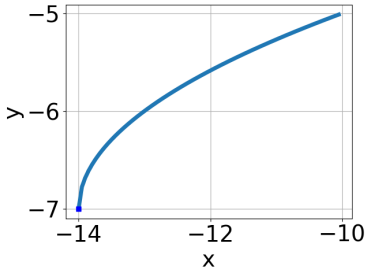
A.



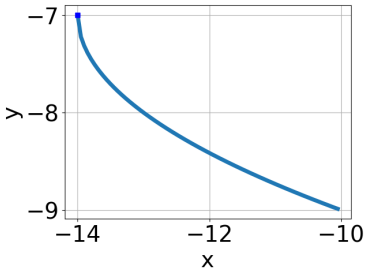
C.



B.



D.



E. None of the above.

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9. What is the domain of the function below?

$$f(x) = \sqrt[5]{-9x - 6}$$

A. The domain is $[a, \infty)$, where $a \in [-0.95, -0.02]$

B. The domain is $(-\infty, a]$, where $a \in [-1.7, -0.82]$

C. The domain is $[a, \infty)$, where $a \in [-1.73, -0.78]$

D. The domain is $(-\infty, a]$, where $a \in [-1.03, -0.19]$

E. $(-\infty, \infty)$

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10. Solve the radical equation below. Then, choose the interval(s) that the solution(s) belongs to.

$$\sqrt{-6x+5} - \sqrt{8x+8} = 0$$

A. $x_1 \in [-1.15, -0.55]$ and $x_2 \in [-1.17, 1.83]$

B. $x \in [-0.31, 0.77]$

C. All solutions lead to invalid or complex values in the equation.

D. $x_1 \in [-0.31, 0.77]$ and $x_2 \in [-1.17, 1.83]$

E. $x \in [0.92, 1.48]$
